IMO 8832693
NAVAL SHIP
APACHE

Grease shall be maintained in carrier bearing space by visual examination of grease relief port in tiller arm quadrant.
- This check shall be repeated for UWILD intermediate survey credit.

Rudder – hull fairing checks:
- Clearance from top of rudder to hull f
  x 2" steel bar {item #55 Rudder & Hull Faring #1260-001-562 rev D} located on rudder hull fairing mounted fwd of rudder stock. Readings shall be compared to initial readings taken @ vessel's last dry-docking. Measurements are taken here to prove proper securement of rudder nut @ bottom of stock. Records shall be maintained in SAMM.
- This check shall be repeated by divers for UWILD intermediate survey credit.

Rudder neck bearing checks:
- Neck bearing clearance shall be checked and compared to baseline readings taken with vessel in dry-dock.
- Mount a dial indicator to measure stock movement with indicator located 15" above stock retainer plate.
- Divers to attach line to lower section of each rudder to enable each rudder to be loaded to port and starboard. Line to be lead to deck and fairleaded to ships capstan to shift rudder athwart ships for neck bearing clearance measurement.
- Each rudder to be shifted & readings taken independently.
- The following dimensions are noted
  - o Top of stock cap plate {item 8} to center of carrier brg appr 28 1/2"
  - o Center of carrier brg to center of neck brg 52 3/4"
  - o Ratio: Multiply dial measurement by 1.85 for neck bearing measurement.
- Record overall distance read on dial indicator and compare to baseline readings taken with vessel in dry-dock.

References:

Vessel's SAMM software located on ships LAN accessible fm Chengr office workstation.

Rudder & Hull Faring drawing #1260-001-562 rev D {ref 90 in Apache prints}

Rudder stock & fittings drawing #1260-002-562 rev D {ref #91 in Apache prints}

Rudder & Steering Assy #1260-002-561 rev F {ref #88 in Apache prints}

Detail 6-C {as modified} Rudder & Steering Assy #1260-002-561 rev F

USNS Apache T-ATF 172
UWILD Survey Requirements

The following shall be maintained as per the vessel's SAMM PM Program and verified at the time of requesting UWILD credit.

PROPELLERS & TAIL SHAFTS:

Stern Tube----------
Oil level is automatically maintained in the P & S stern tube LO head tanks by the stern tube LO system. Proper operation shall be verified.

Stern tube LO head tank levels monitored manually via local sight glasses and remotely via HI & LO level alarm inputs to ERC.

Stern tube LO sump tank levels checked manually via sounding tubes and remotely via TLI's with HI & LO level alarm inputs to ERC.

Stern tube LO quarterly analysis – documented in SAMM.

Stern tube pump, motor and strainer maintenance documented in SAMM.

CPP ----------
Oil level is automatically maintained in the P & S CPP LO head tanks by the stern tube LO system.

CPP LO head tank levels monitored manually via local sight glasses and remotely via HI & LO level alarm inputs to ERC.

CPP LO sump tank levels checked manually via sounding tubes and remotely via TLI's with HI & LO level alarm inputs to ERC.

CPP LO quarterly analysis – documented in SAMM.

CPP LO pump, motor and filter systems PM – documented in SAMM.

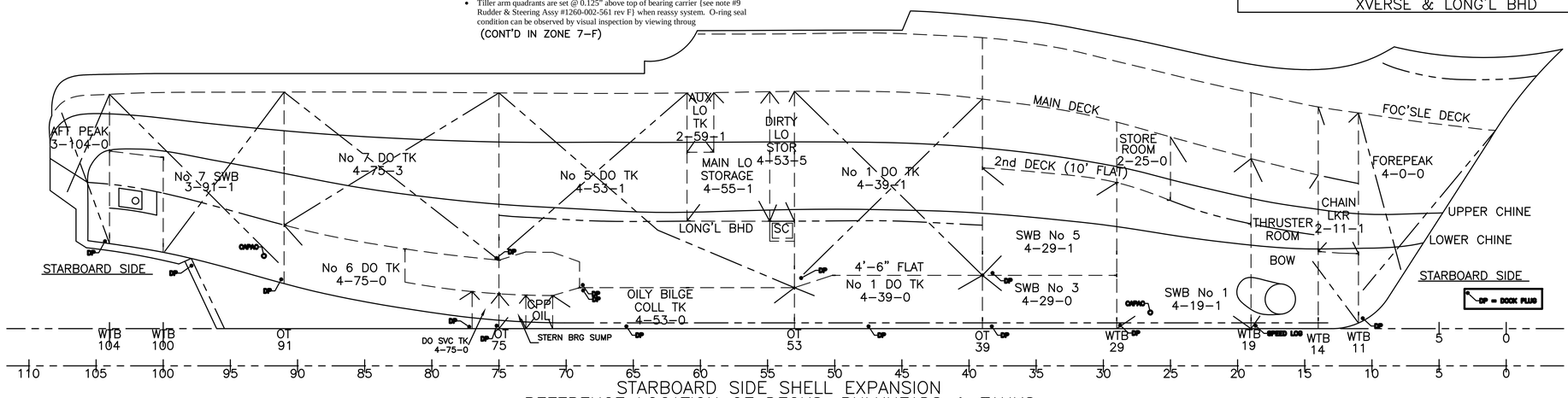
RUDDERS

Rudder bearing lubrication – PM documented in SAMM.

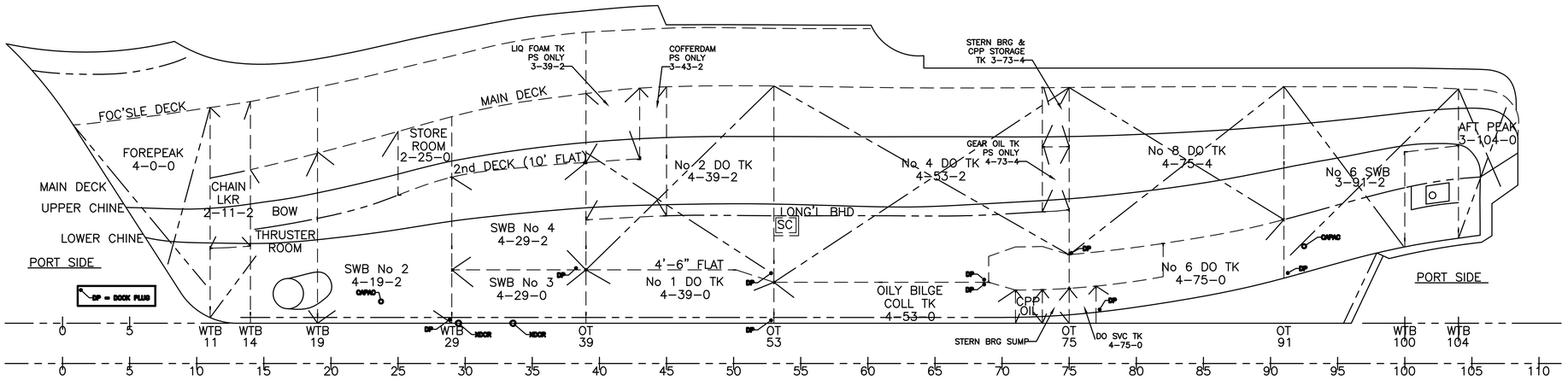
Rudder carrier bearing:
- Tiller arm quadrants are set @ 0.125" above top of bearing carrier {see note #9 Rudder & Steering Assy #1260-002-561 rev F} when reassy system. O-ring seal condition can be observed by visual inspection by viewing throug

(CONT'D IN ZONE 7-F)

HULL MARK LEGEND	
FR 29	6" HIGH x 1" BLOCK LETTERS FRAME LOCATION
CD	6" x 1" BLOCK LETTERS COFFERDAM
WB	6" x 1" BLOCK LETTERS WATER BALLAST
OT	6" x 1" BLOCK LETTERS OIL TIGHT BHD
I	"A" 1"x6" VERT LINE DENOTES XVERSE OR LONG'L BHD
⊣	"B" 1"x6" TEE, DENOTES INTERSECTION OF XVERSE & LONG'L BHD
⌜	"C" 1"x6" "L" , DENOTES CORNER OF TANK
+	"D" 6" CROSS, DENOTES INTERSECTION OF XVERSE & LONG'L BHDS
⊥	"E" 1"x6" MODIFIED TEE, DENOTES INTERSECTION OF XVERSE & LONG'L BHD



STARBOARD SIDE SHELL EXPANSION
REFERENCE LOCATION OF DECKS, BULKHEADS & TANKS


LIQ FOAM TK PS ONLY 3-39-2
COFFERDAM PS ONLY 3-43-2
STERN BRG & CPP STORAGE TK 3-73-4
FOC'SLE DECK
MAIN DECK
FOREPEAK 4-0-0
STORE ROOM 2-25-0
2nd DECK (10' FLAT)
GEAR OIL TK PS ONLY 4-73-4
No 2 DO TK 4-39-2
No 4 DO TK 4-53-2
No 8 DO TK 4-75-4
No 6 SWB 3-91-2
AFT PEAK 3-104-0
MAIN DECK
UPPER CHINE
LOWER CHINE
CHAIN LKR 2-11-2
BOW
THRUSTER ROOM
LONG'L BHD
SC
SWB No 4 4-29-2
SWB No 2 4-19-2
SWB No 3 4-29-0
4'-6" FLAT
No 1 DO TK 4-39-0
No 6 DO TK 4-75-0
OILY BILGE COLL TK 4-53-0
CPP OIL
STERN BRG SUMP
DO SVC TK 4-75-0
PORT SIDE
DP = DOCK PLUG
0 5 WTB 11 WTB 14 WTB 19 WTB 29 OT 39 OT 53 OT 75 OT 91 WTB 100 WTB 104
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110

PORT SIDE SHELL EXPANSION
REFERENCE LOCATION OF DECKS, BULKHEADS & TANKS

REVISIONS				
REV	ZONE	DESCRIPTION	DATE	APPVD

GENERAL NOTES

1. THE PURPOSE OF THIS DRAWING IS TO PROVIDE THE LOCATIONS AND TYPES OF HULL MARKINGS INSTALLED TO FACILITATE UNDERWATER INSPECTIONS IN LIEU OF DRYDOCKING SURVEYS.

2. EACH HULL MARK IS TO BE 6" HIGH WITH 1" WIDE ELEMENTS; DEFINED BY WELD BEAD OUTLINE AND COATED WITH A CONTRASTING ANTIFOULING PAINT.

3. SEE ZONE 6-F FOR THE METHOD FOR INSPECTING THE RUDDERS BEARINGS, IN LIEU OF DRYDOCKING AND THE METHOD USED FOR INSPECTING THE STERN TUBE BEARINGS/CPP, IN LIEU OF DRYDOCKING:

			2	1	SH	REV STATUS OF SHEETS
			–	–	REV	

PLAN NO.	TITLE
5	1260-002-561/F	RUDDER AND STEERING ASSEMBLY
4	1260-002-562/D	RUDDER STOCK AND FITTINGS
3	1260-001-562/D	RUDDER AND HULL FAIRING
2	835-6245318	CAPACITY PLAN
1	1230-005-110	SHELL EXPANSION PLAN

REFERENCES

AMERICAN BUREAU OF SHIPPING

DATE SUBMITTED	RESUBMIT DATE	APPROVAL DATE

BECKLEY ENGINEERING CO., INC.
32 South Hampton Drive, Charleston, SC 29407
PHONE: 1-843-766-1232 // FAX: 1-843-766-3122 // E-mail: sbeckley@alum.mit.edu

DATE	DRAWN BY:	CHECKED BY:
21 MARCH 2008		
	APPROVED BY:	

DRAWN BY:	CHECKED BY:
APPROVED BY:	DATE
APPROVED BY:	
APPROVED BY:	
APPROVED BY:	

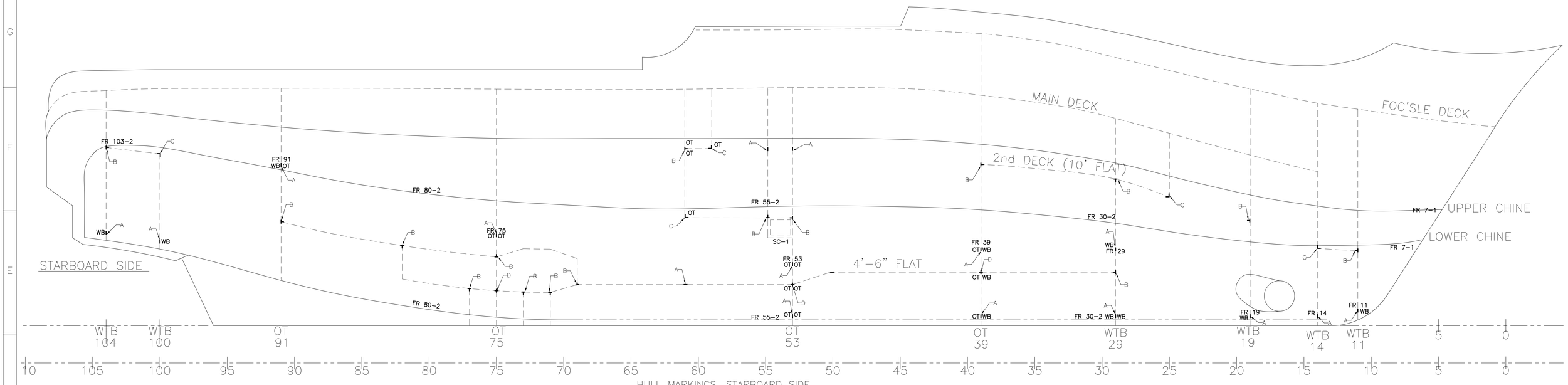
MILITARY SEALIFT COMMAND
WASHINGTON, DC 20398-5100

USNS APACHE T ATF 172

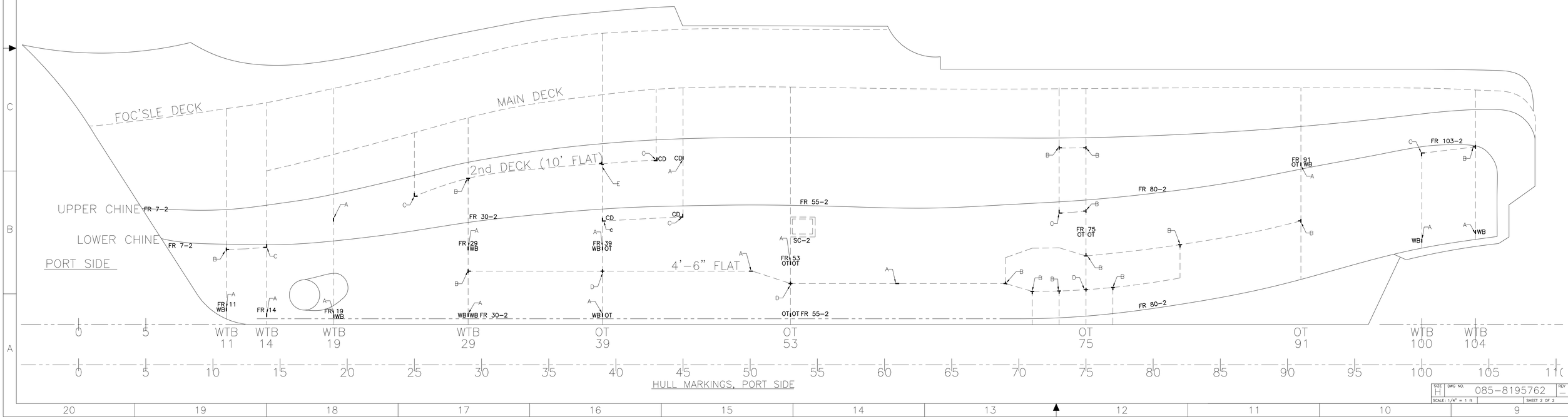
UNDERWATER HULL MARKINGS
FOR SURVEY IN LIEU OF DRYDOCKING

SIZE	DWG NO.	REV
F	085-8195762	–

SCALE: 1/8" = 1 ft SHEET 1 OF 2



HULL MARKINGS, STARBOARD SIDE



HULL MARKINGS, PORT SIDE

SIZE	DWG NO.	REV
H	085-8195762	—
SCALE: 1/4" = 1 ft		SHEET 2 OF 2